

Amendments to the Claims:

Claim 1. (Previously Presented) A method for identifying a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition, said method comprising:

(a) providing a *C. elegans* or isolated *C. elegans* cell expressing a nucleic acid sequence that encodes a mammalian polypeptide having at least 95% identity to SEQ ID NO:54 and that functions in insulin signaling; and

(b) contacting said *C. elegans* or isolated *C. elegans* cell with a candidate compound, wherein a decrease in expression or activity of said nucleic acid sequence following contact of said *C. elegans*, or said isolated *C. elegans* cell with said candidate compound identifies a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition.

Claims 2-12 (Canceled).

Claim 13. (Previously Presented) The method of claim 1, wherein said nucleic acid sequence is a human nucleic acid sequence.

Claims 14-16 (Canceled).

Claim 17. (Previously Presented) A method for identifying a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition, said method comprising:

(a) providing a *C. elegans* or isolated *C. elegans* cell expressing a mammalian AFX or FKHR nucleic acid sequence that hybridizes under highly stringent conditions to the complement of a nucleic acid sequence encoding the sequence of SEQ ID NO:57 or SEQ ID NO:102 and that functions in insulin signaling;

(b) contacting said *C. elegans* or isolated *C. elegans* cell with a candidate compound, wherein a decrease in expression or activity of said AFX or FKHR nucleic acid sequence following contact of said *C. elegans* or said isolated *C. elegans* cell with said candidate compound identifies a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition.

Claim 18 (Canceled).

Claim 19. (Previously Presented) The method of claim 17, wherein said nucleic acid sequence is AFX

Claim 20. (Previously Presented) The method of claim 17, wherein said nucleic acid sequence is FKHR.

Claim 21. (Previously Presented) A method for identifying a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition, said method comprising:

(a) providing a *C. elegans* or isolated *C. elegans* cell expressing a nucleic acid sequence encoding human FKHR polypeptide; and

(b) contacting said *C. elegans* or isolated *C. elegans* cell with a candidate compound, wherein a decrease in expression or activity of said nucleic acid sequence encoding human FKHR polypeptide following contact of said *C. elegans* or isolated *C. elegans* cell with said candidate compound identifies a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition.

Claim 22. (Previously Presented) A method for identifying a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition, said method comprising:

(a) providing a *C. elegans* or isolated *C. elegans* cell expressing a nucleic acid sequence encoding human AFX polypeptide; and

(b) contacting said *C. elegans* or isolated *C. elegans* cell with a candidate compound, wherein a decrease in expression or activity of said nucleic acid sequence encoding human AFX polypeptide following contact of said *C. elegans* or isolated *C. elegans* cell with said candidate compound identifies a candidate modulatory compound for ameliorating or delaying an impaired glucose tolerance condition.

Claim 23. (Previously Presented) The method of any one of claims 1, 17, 21, and 22, wherein said glucose tolerance condition is atherosclerosis.

Claim 24. (Previously Presented) The method of any one of claims 1, 17, 21, and 22, wherein said glucose tolerance condition is obesity.

Claim 25. (New) A method for the identification of a modulatory compound that is capable of increasing the expression or activity of a *daf* gene, involving:

(a) providing a cell expressing said *daf* gene and

(b) contacting said cell with a candidate compound, an increase in *daf* expression or activity following contact with said candidate compound identifying a modulatory compound.

Claim 26. (New) A method for the identification of a modulatory compound that is capable of increasing the expression or activity of an *akt* gene, involving:

(a) providing a cell expressing said *akt* gene and
(b) contacting said cell with a candidate compound, an increase in *akt* expression or activity following contact with said candidate compound identifying a modulatory compound.